

Fig.1

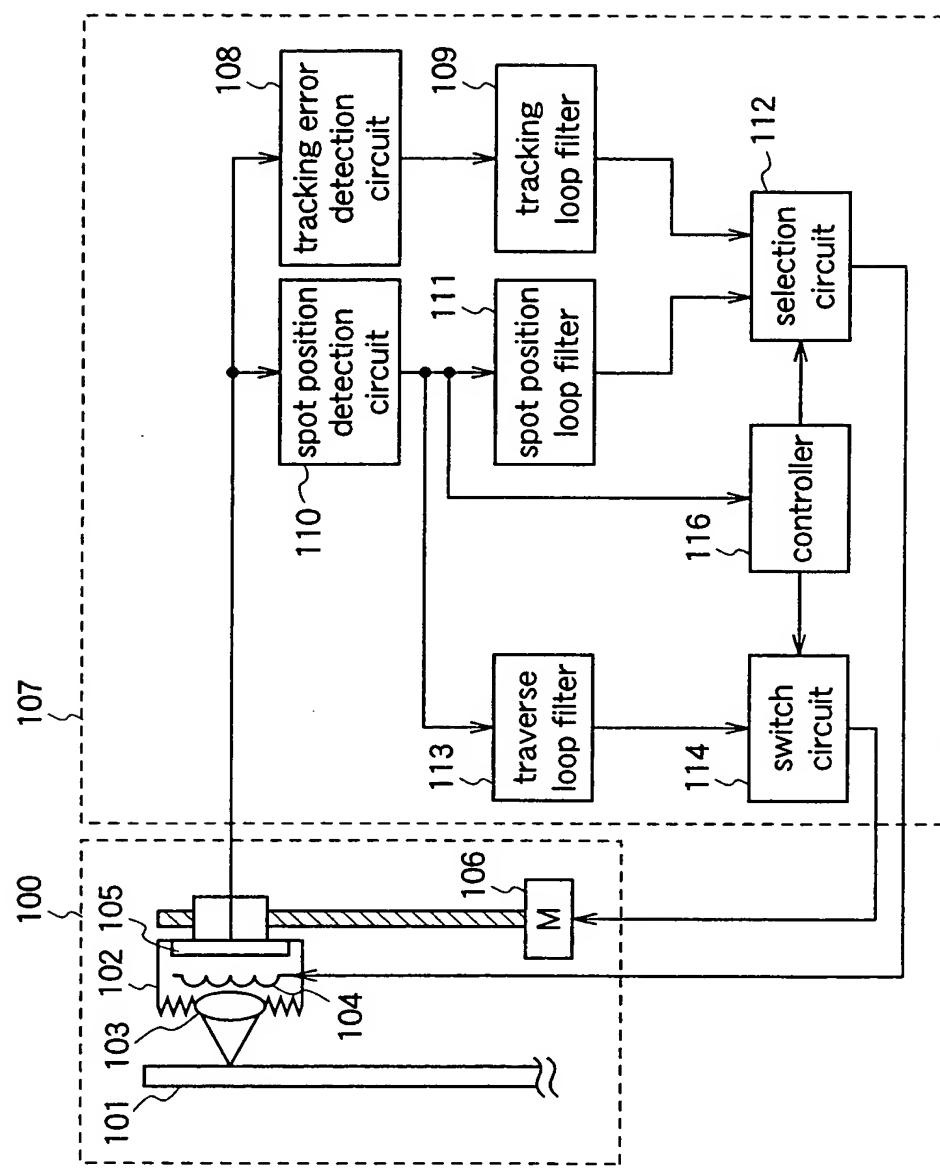


Fig.2

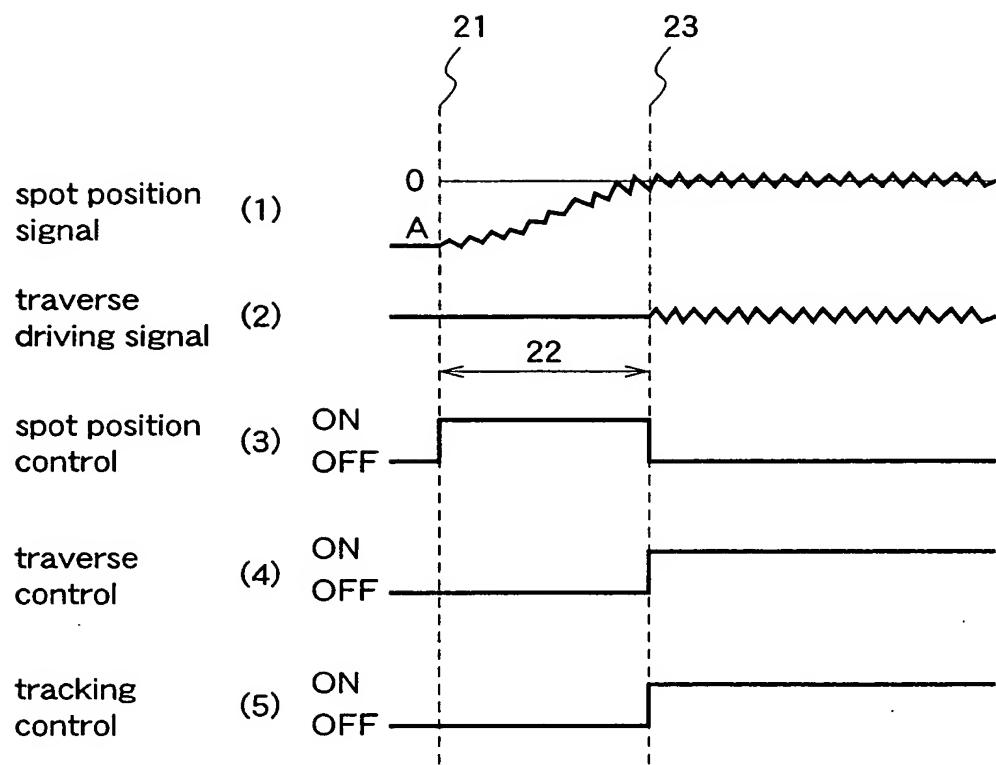


Fig.3

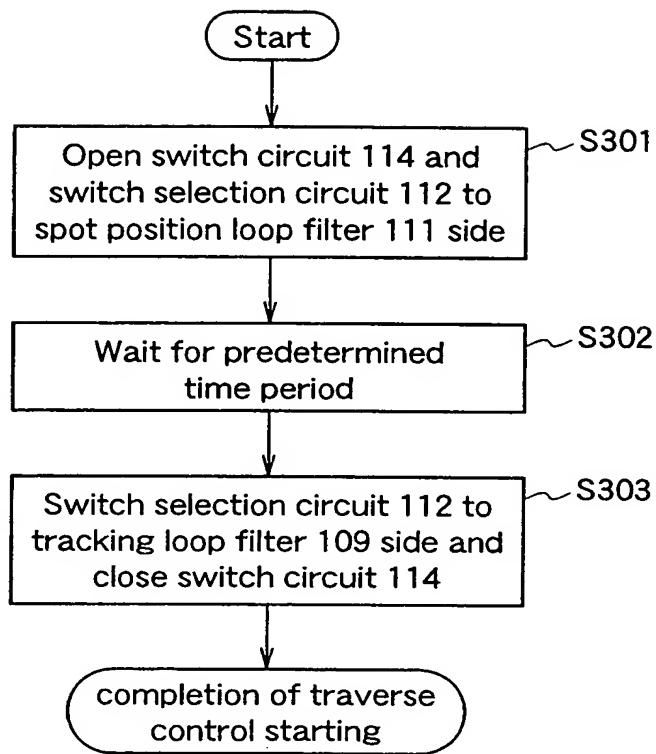


Fig. 4

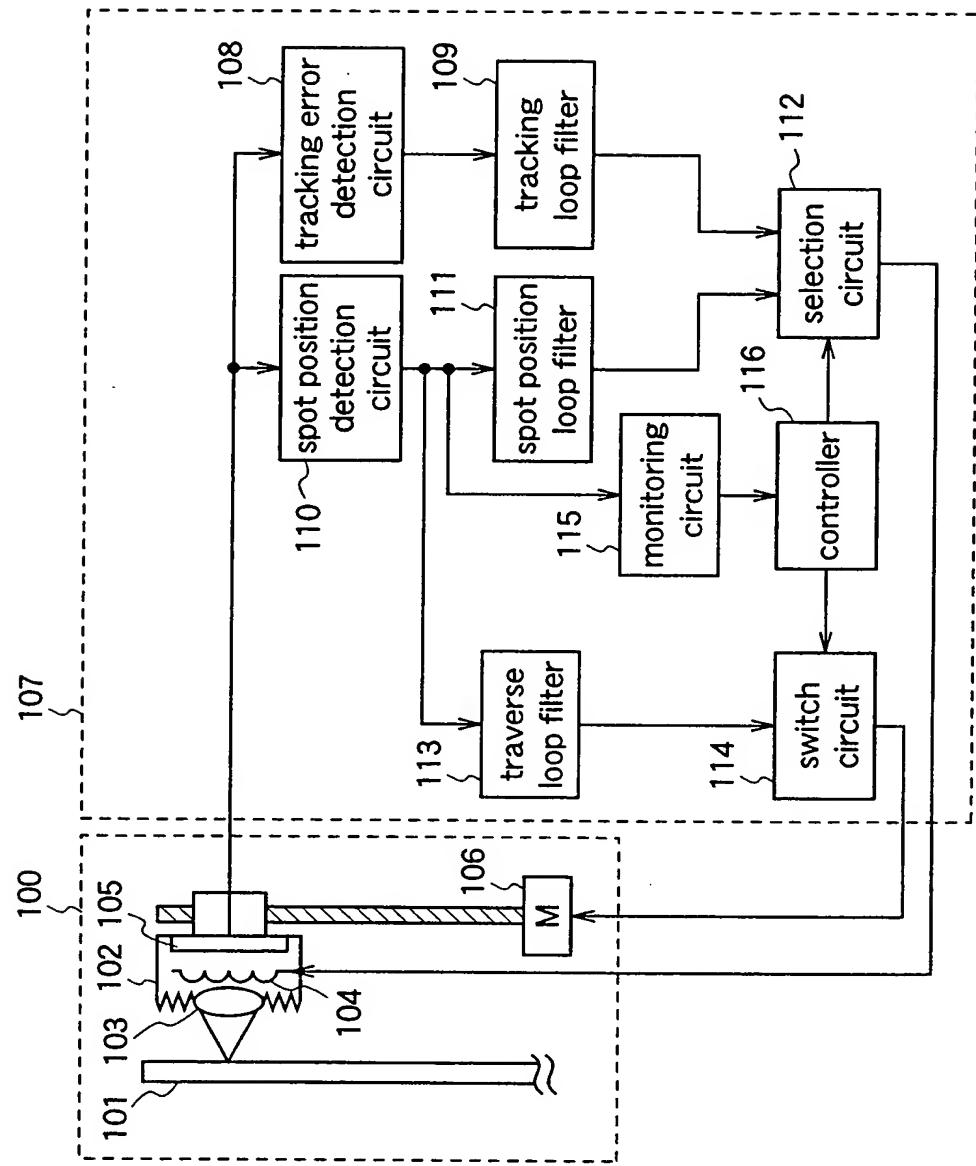


Fig.5

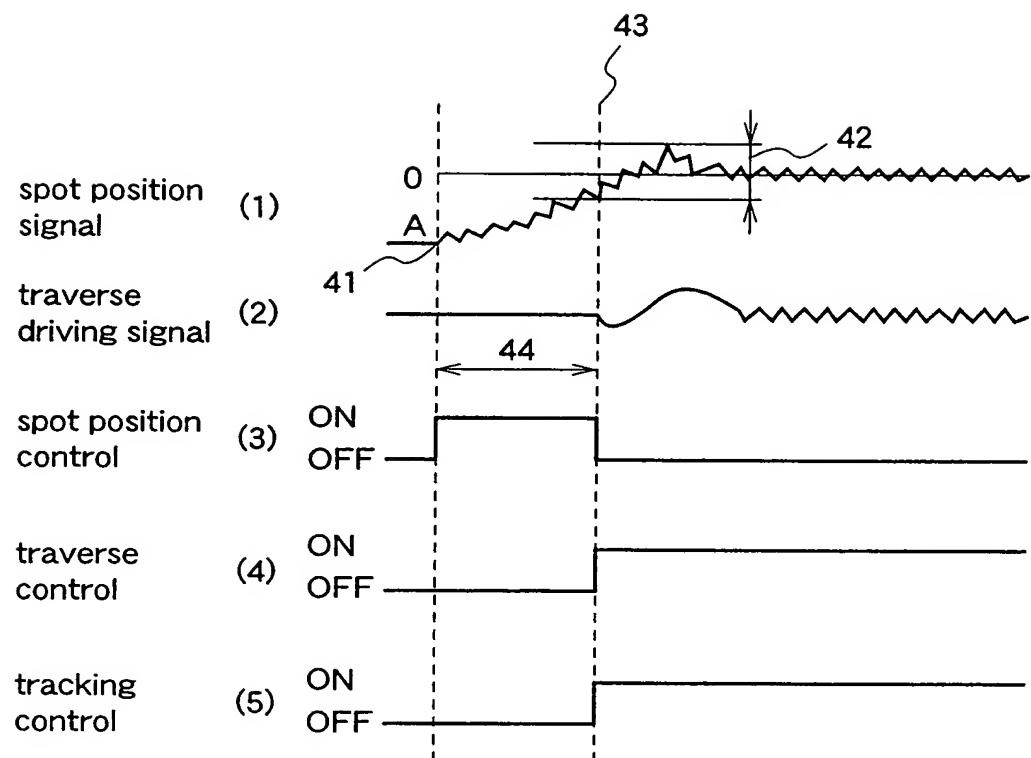


Fig.6

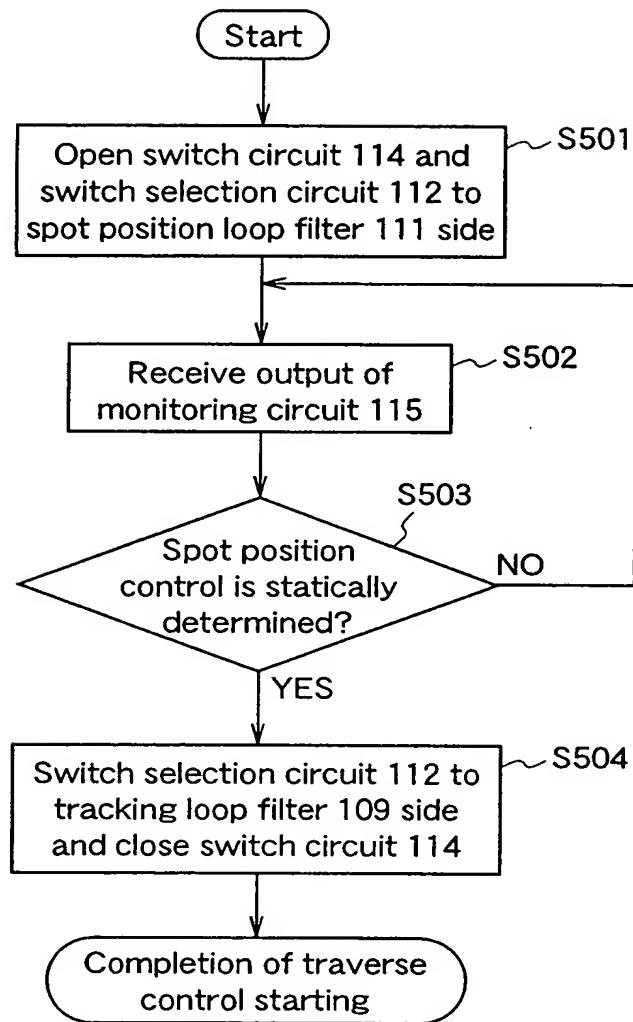


Fig.7

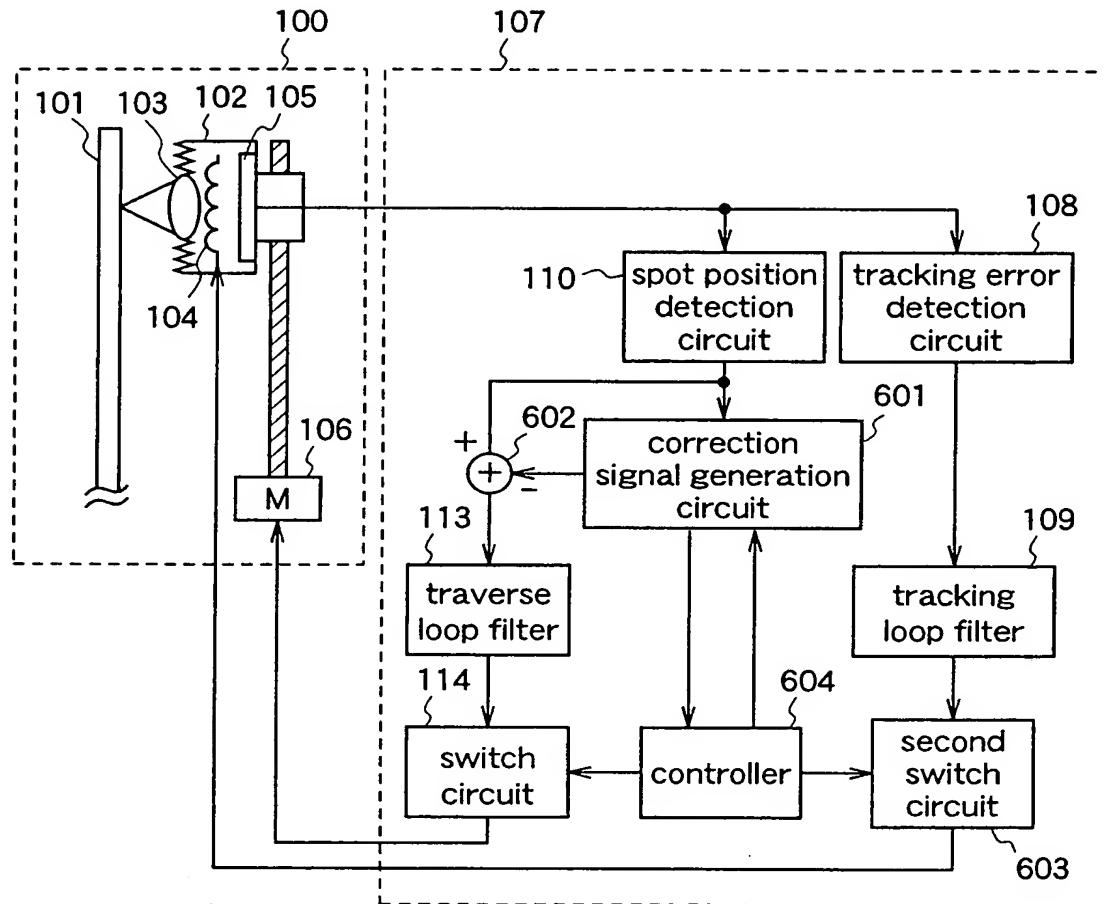


Fig.8

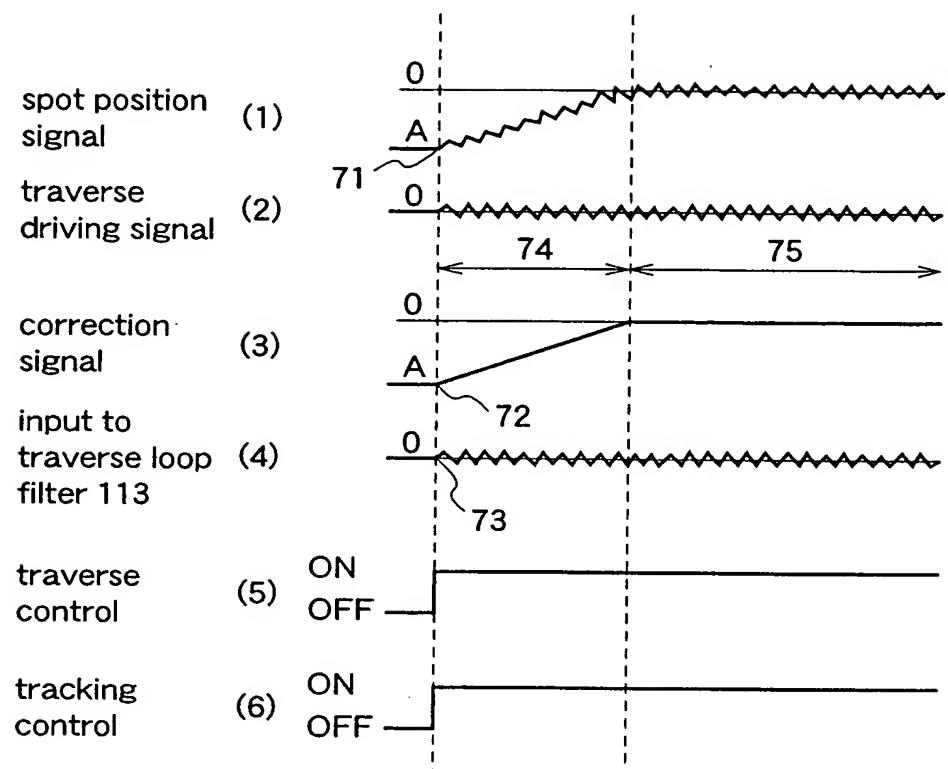


Fig.9

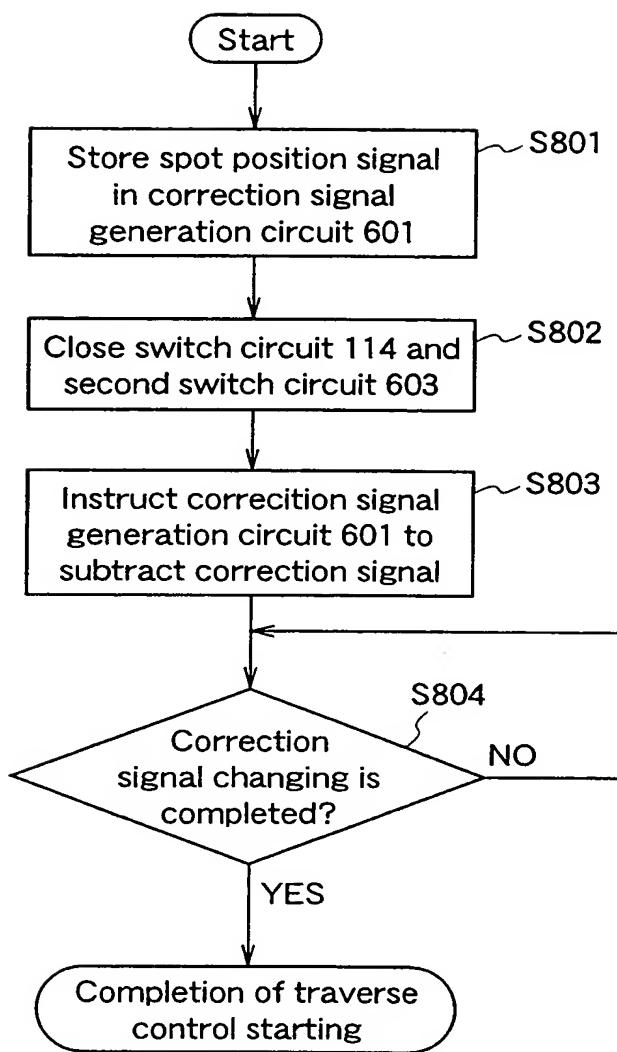


Fig.10

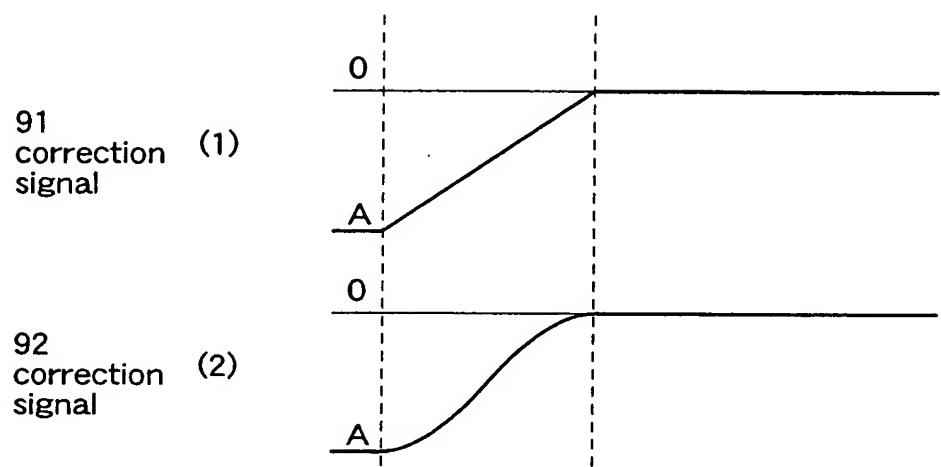


Fig.11

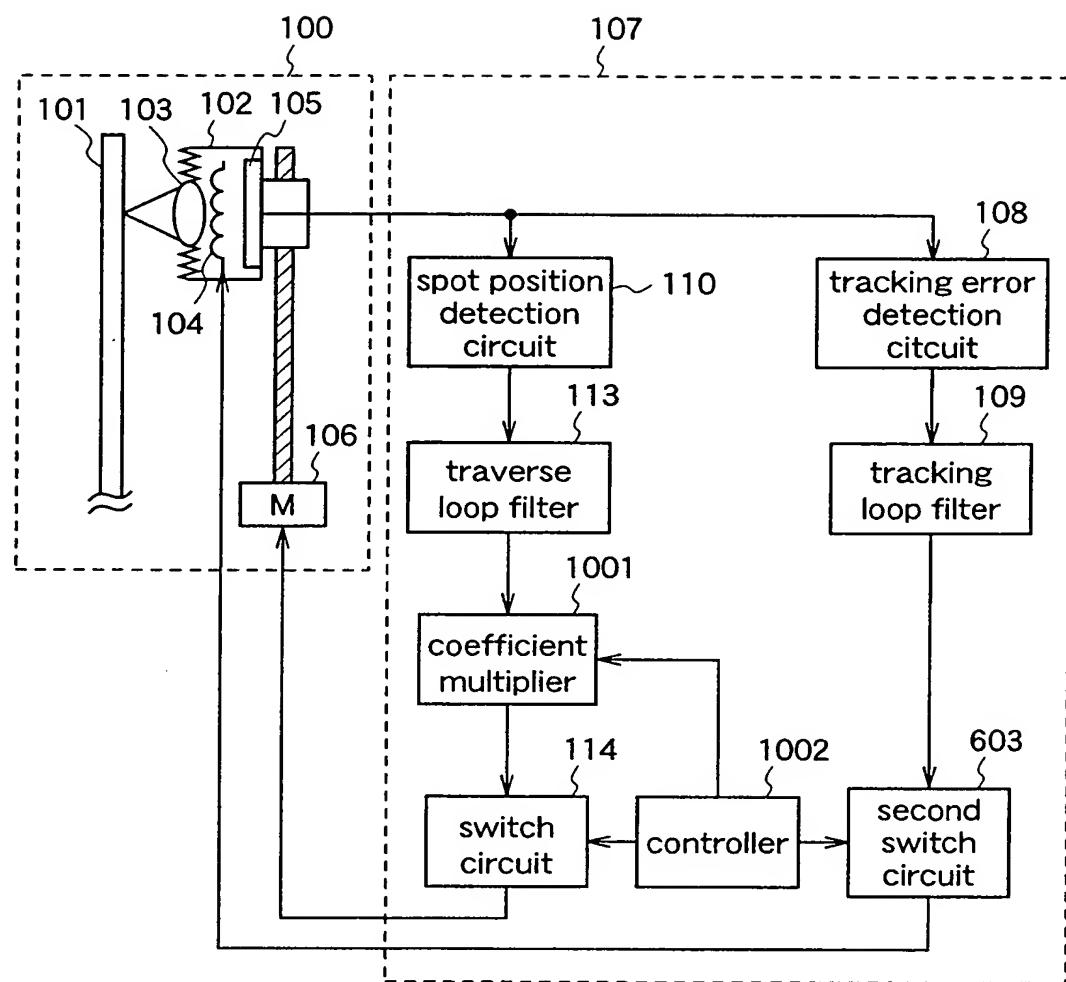


Fig.12

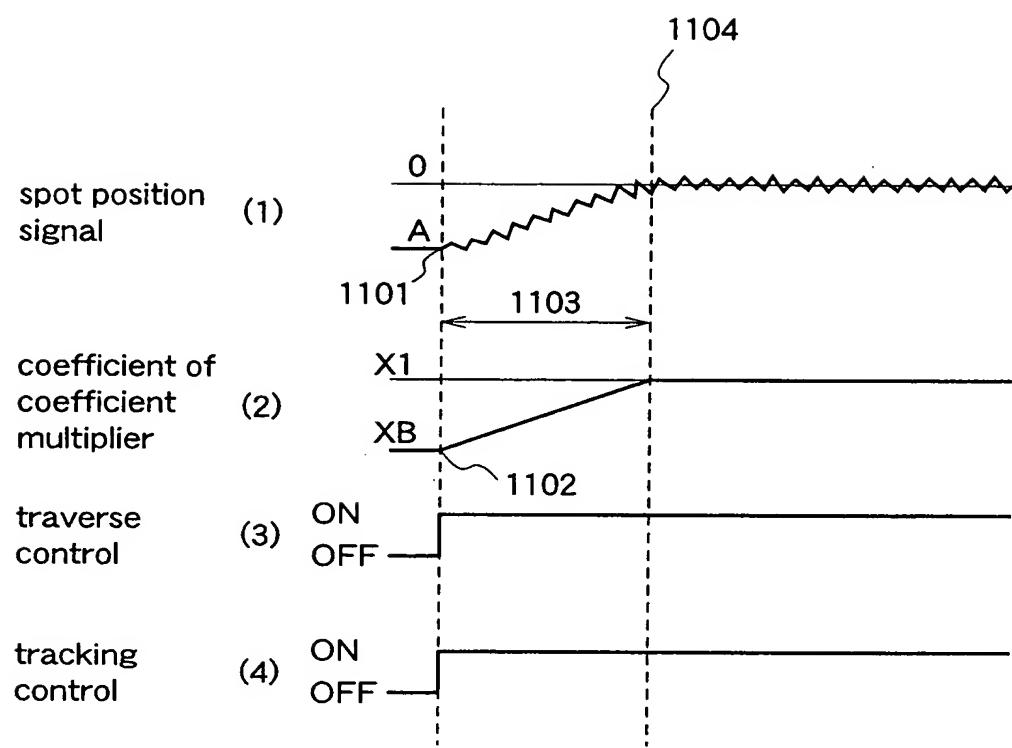


Fig.13

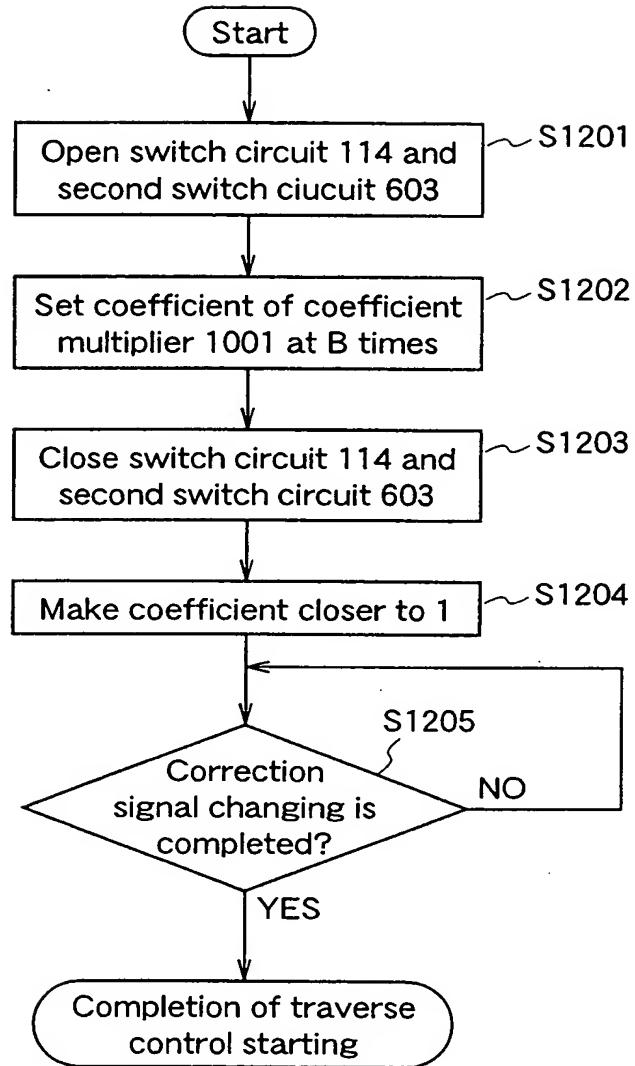
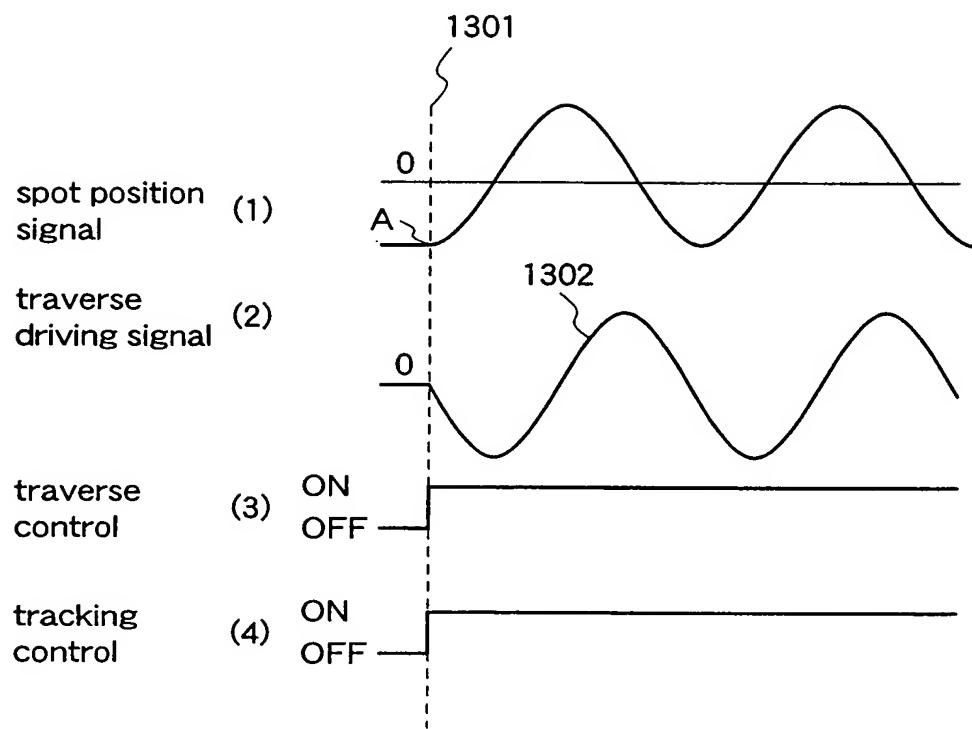
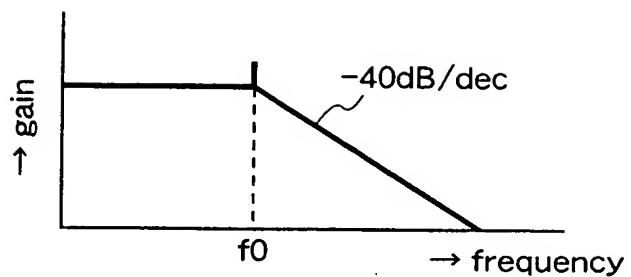


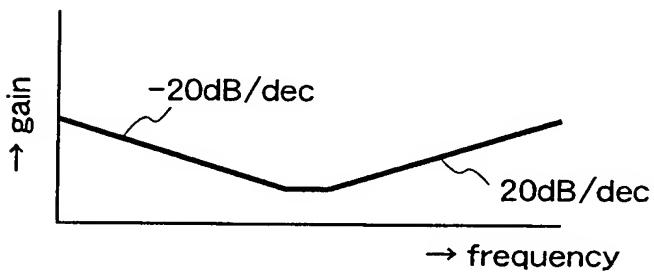
Fig.14 Prior Art



**Fig.15 (a)**  
open-loop gain  
characteristics  
without spot position  
loop filter 111



**Fig.15 (b)**  
gain characteristics  
of spot position  
loop filter 111



**Fig.15 (c)**  
open-loop  
characteristics of  
whole spot  
position control

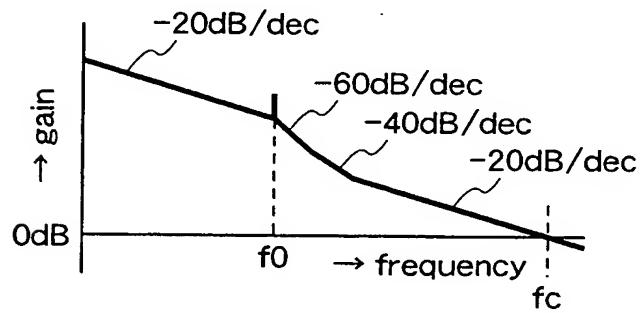
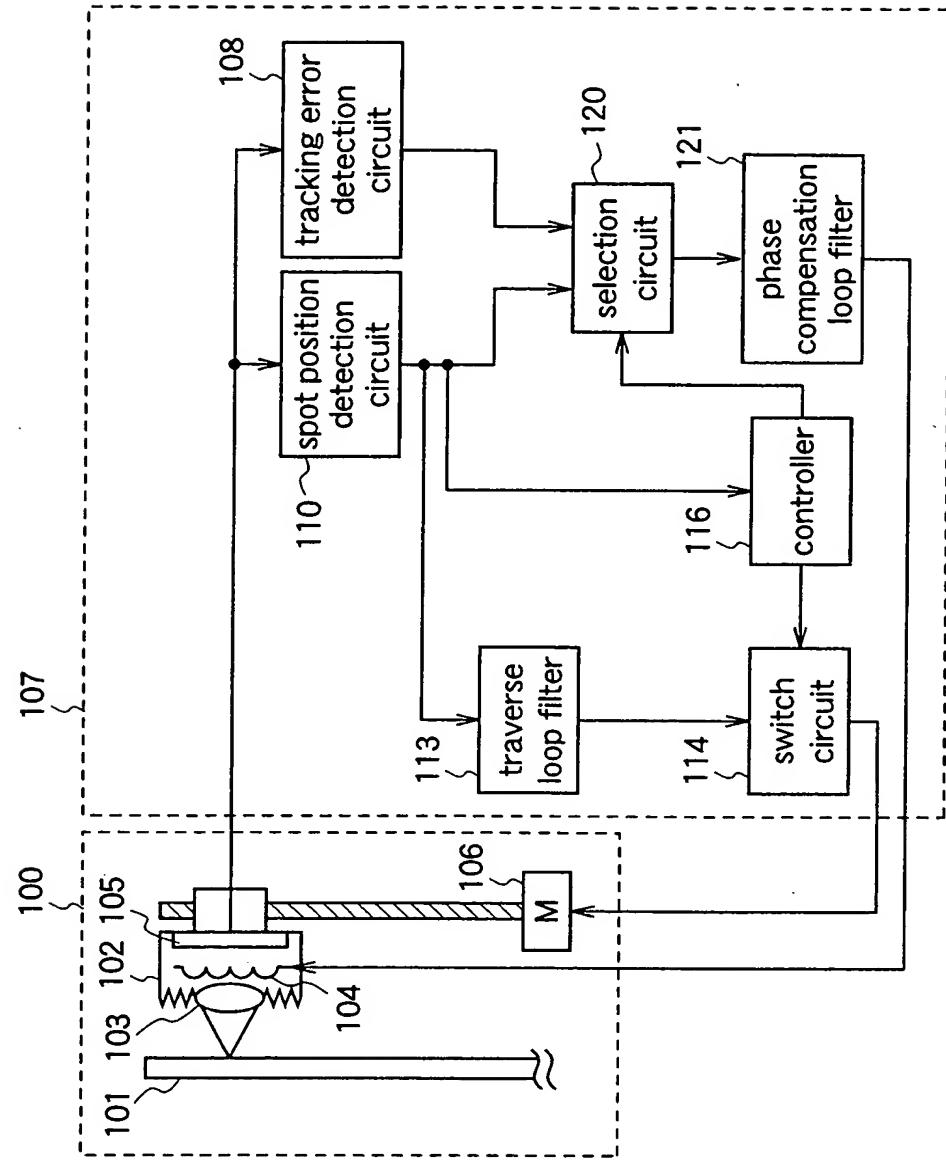
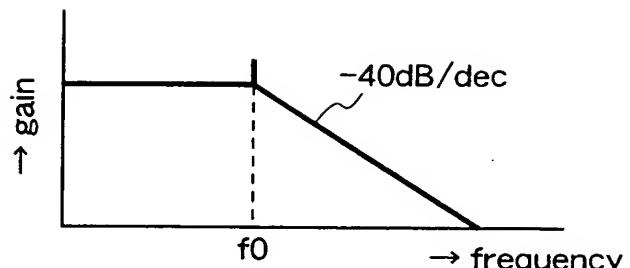


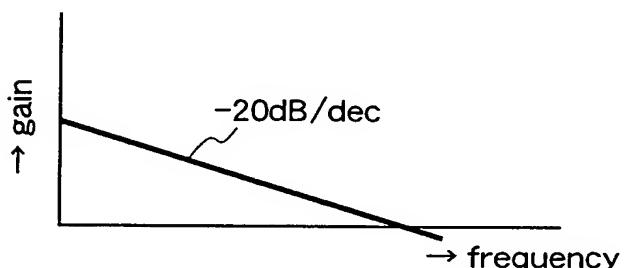
Fig.16



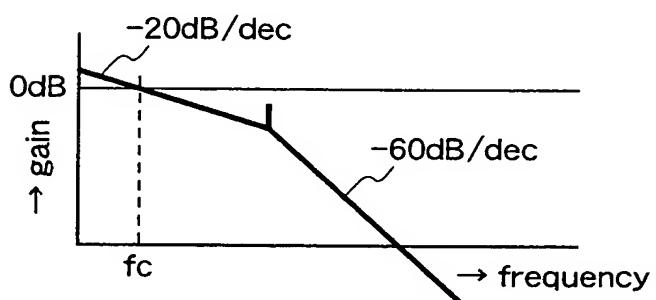
**Fig.17 (a)**  
open-loop gain  
characteristics  
without spot position  
loop filter 111



**Fig.17 (b)**  
gain characteristics  
of spot position  
loop filter 111

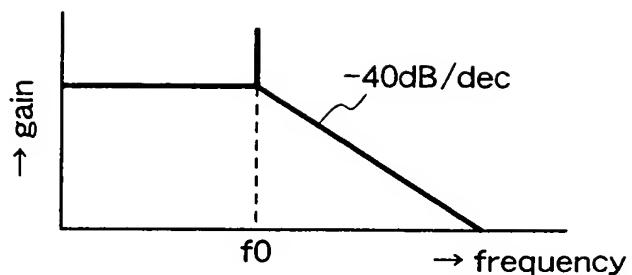


**Fig.17 (c)**  
open-loop  
characteristics of  
whole spot  
position control



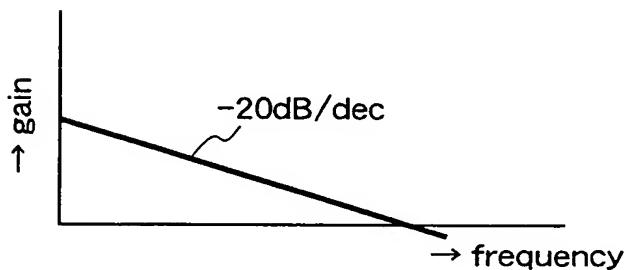
**Fig.18 (a)**

open-loop gain characteristics without spot position loop filter 111



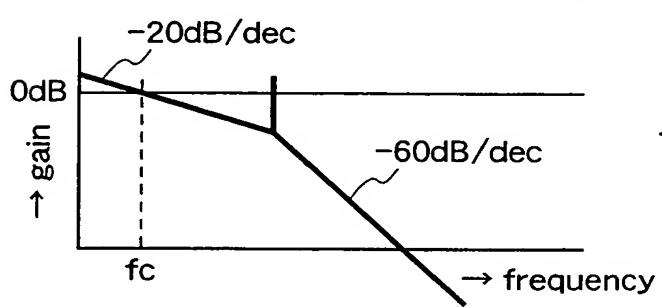
**Fig.18 (b)**

gain characteristics of spot position loop filter 111



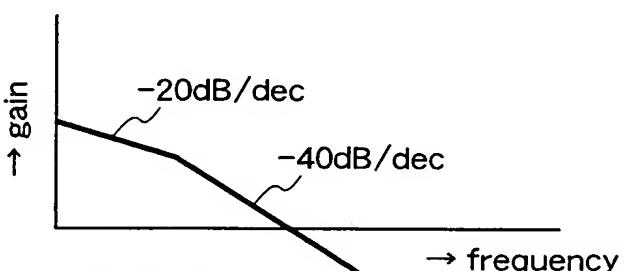
**Fig.18 (c)**

open-loop characteristics of whole spot position control



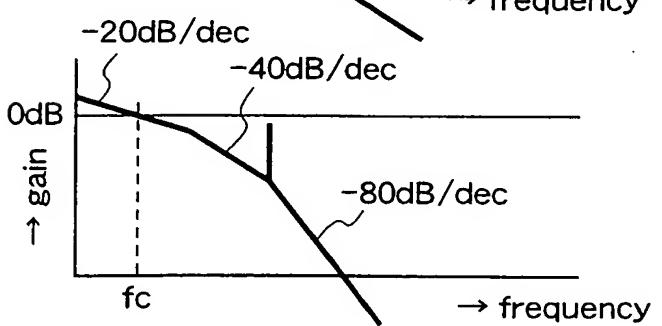
**Fig.18 (d)**

gain characteristics of changed spot position loop filter 111

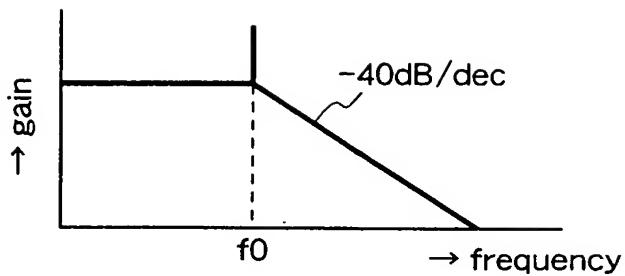


**Fig.18 (e)**

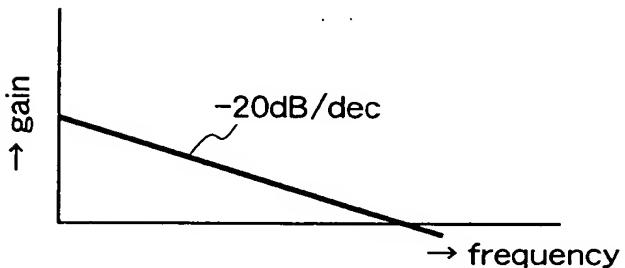
open-loop characteristics of whole changed spot position control



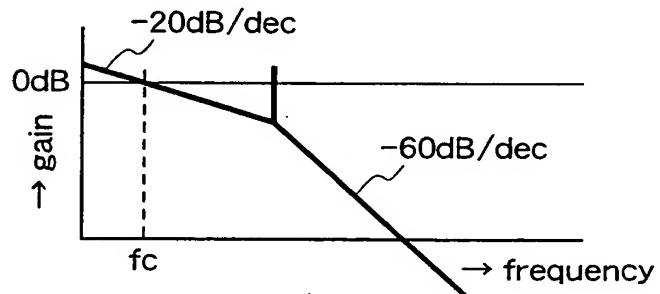
**Fig.19 (a)**  
open-loop gain  
characteristics  
without spot position  
loop filter 111



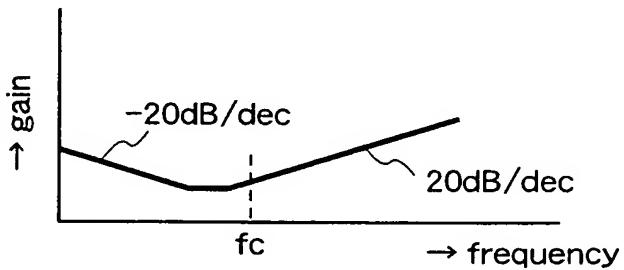
**Fig.19 (b)**  
gain characteristics  
of spot position  
loop filter 111



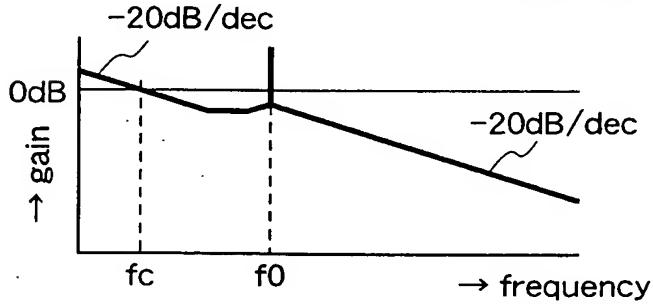
**Fig.19 (c)**  
open-loop  
characteristics of  
whole spot  
position control



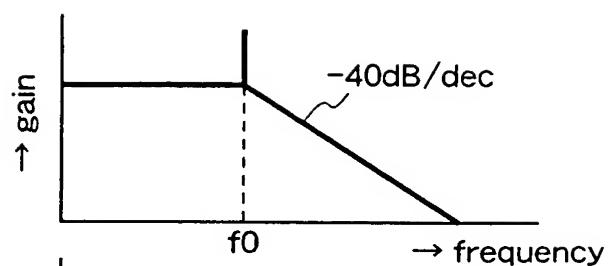
**Fig.19 (d)**  
gain characteristics  
of spot position  
loop filter 111



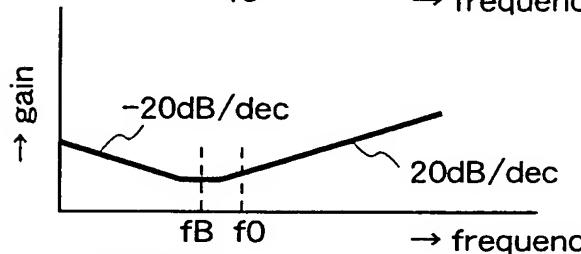
**Fig.19 (e)**  
open-loop  
characteristics of  
whole spot  
position control



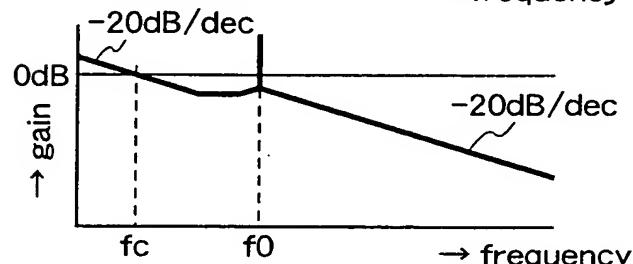
**Fig.20 (a)**  
open-loop gain  
characteristics  
without spot position  
loop filter 111



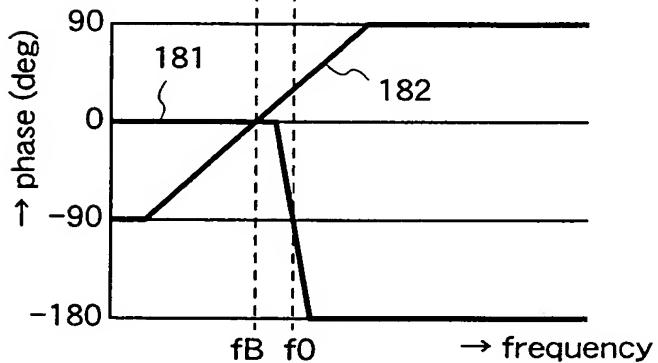
**Fig.20 (b)**  
gain characteristics  
of spot position  
loop filter 111



**Fig.20 (c)**  
open-loop  
characteristics of  
whole spot  
position control



**Fig.20 (d)**  
open-loop phase  
characteristics 181  
without spot position  
loop filter 111 and  
phase characteristics  
182 of spot position  
loop filter 111



**Fig.20 (e)**  
phase characteristics  
of whole spot  
position control

